

Unclassified-Unlimited

AD-675 300

AD 675300

A DDC BIBLIOGRAPHY ON
MICROFICHE, MICROFILM AND RELATED
EQUIPMENT

VOLUME I

DDC-TAS-68-3

DDC
OCT 4 1968
LIBRARY

This document has been approved
for public release and sale; its
distribution is unlimited.

July 1968

Unclassified-Unlimited



DEFENSE DOCUMENTATION CENTER
DEFENSE SUPPLY AGENCY

Reproduced by the
CLEARINGHOUSE
for Federal Scientific & Technical
Information Springfield Va. 22151

U N C L A S S I F I E D

AD-675 300

A DDC BIBLIOGRAPHY ON
MICROFICHE, MICROFILM
AND
RELATED EQUIPMENT

VOLUME I

DDC-TAS-68-3

JULY 1968

This document has been approved
for public release and sale; its
distribution is unlimited.

DEFENSE DOCUMENTATION CENTER
for
SCIENTIFIC and TECHNICAL INFORMATION
Cameron Station, Alexandria, Virginia 22314

U N C L A S S I F I E D

P R E F A C E

This bibliography is Volume I of two volumes which contains a compilation of approximately 40 Unclassified-Unlimited references on Microfiche, Microfilm and Related Equipment acquired by DDC since 1953. Citations are topically arranged in AD sequence, ascending order. The complete set (two volumes) will contain approximately 80 references. Volume II (AD-838 400) is an Unclassified-Limited compilation of references on Microfiche, Microfilm and Related Equipment acquired by DDC since 1953. To facilitate searching for specific entries, computer-generated indexes are presented at the back. These include Subject (Descriptor), Corporate Author (Originator), Personal Author, Contract, Report Number and AD-Numeric.

The indexes are employed as follows:

SUBJECT INDEX

The Subject Index is arranged according to alphabetical order of asterisked descriptors which identify the most significant subjects of the report. The asterisked descriptors may or may not have a modifying descriptor appearing directly below it. Under each descriptor entry appear the annotation and AD number. For example:

*Microfiche
Cost Effectiveness
Library Fiche: An introduction and explanation
AD-661 660

under one contract number, entries are arranged by AD number under each corporate author represented. A contract entry may also contain a letter F, A, or S on the left-hand margin, indicating that the document is a Final, Annual, or Summary Report.

For example: *AF19 628 2390
 Mitre Corporation, Bedford, Mass.
 TM-04024
 (ESD-TR-65-90)
 F AD-620 279

REPORT NUMBER INDEX

The Report Number Index lists identifying numbers assigned either by the document originators or by the sponsors of the work described in the documents.

For example: FR63 11 208
 AD-419 895

AD-NUMERIC INDEX

This index can be used to find the page number of a specific citation if the AD number is known. It can also be used in conjunction with the other indexes to locate quickly the AD numbers referenced there for entries contained in this volume.

BY ORDER OF THE DIRECTOR, DEFENSE SUPPLY AGENCY

OFFICIAL

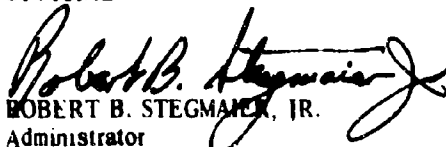

ROBERT B. STEGMAIER, JR.
Administrator
Defense Documentation Center

TABLE OF CONTENTS

	<u>Page</u>
PREFACE...	iii
AD BIBLIOGRAPHIC REFERENCES	
Microfiche.....	1
Microfilm.....	9
Related Equipment.....	25
INDEXES	
Subject.....	D-1
Corporate Author/Monitoring Agency.....	O-1
Personal Author.....	P-1
Contract.....	C-1
Report Number.....	R-1
AD-Numeric.....	A-1

MICROFICHE

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-632 472 14/5 14/1
SYSTEM DEVELOPMENT CORP SANTA MONICA CALIF
PUBLICATION COST ANALYSIS TECHNIQUES. (U)
DESCRIPTIVE NOTE: PROFESSIONAL PAPER,
MAR 66 23P TEPLITZ, ARTHUR ;
REPT. NO. SP-2241/000/01,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (=PRINTING, COSTS), MICROFICHE,
MICROFILM, PUNCHED CARDS, DISTRIBUTION (U)
IDENTIFIERS: PUBLICATION, COST ANALYSIS, OFFSET
PRINTING (U)

THE PAPER DESCRIBES THE RESULTS OBTAINED FROM
ANALYZING PAST PRINTING REQUIREMENTS AT SYSTEM
DEVELOPMENT CORPORATION AND DETERMINING
ALTERNATIVE METHODS OF PRINTING, DUPLICATION, AND
DISTRIBUTION. THE TECHNIQUES USED IN DETERMINING
THE COSTS FOR EACH OF THE SEVERAL ALTERNATIVE METHODS
ARE DESCRIBED, AND ELEMENTS OF COST DISCUSSED
BRIEFLY. THE TECHNIQUES PERMIT COMPARISONS BETWEEN
STANDARD OFFSET PRINTING METHODS AND CONVENTIONAL
DISTRIBUTION METHODS-APERTURE CARDS, MICROFICHE AND
MICROFILM CARTRIDGES. (AUTHOR) (U)

UNCLASSIFIED

DOC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-629 624 8/2
REDSTONE SCIENTIFIC INFORMATION CENTER REDSTONE ARSENAL
ALA
CONVERTING THE IDEP MASTER FILE REPORTS FORMAT, (U)
JUN 66 18P MARTIN, CLAUDE E. I
REPT. NO. RSIC-967,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•DATA PROCESSING SYSTEMS,
INFORMATION RETRIEVAL), (•MICROFICHE, DATA
PROCESSING SYSTEMS), (•MICROFILM, DATA PROCESSING
SYSTEMS), DATA STORAGE SYSTEMS, PREPARATION (U)

THE REPORT PRESENTS SOME OF THE PROBLEMS THAT WERE
ENCOUNTERED IN CONVERTING THE INTERSERVICE DATA
EXCHANGE PROGRAM MASTER FILM STRIP FILE TO 16 MM
ROLL FILM, AND OFFERS METHODS FOR SOLVING THEM. IT
POINTS OUT THE LACK OF EQUIPMENT AND QUALITY CONTROL
TECHNIQUES FOR PRODUCING FILM COPIES FROM HARD COPY
DOCUMENTS. THE SITUATIONS THAT CAUSE POOR QUALITY
FILM WHEN REPRODUCING BY THE DIAZZO METHOD ARE
DISCUSSED. IN ADDITION, SITUATIONS THAT CAUSE HEAT
SPICES TO BREAK ARE MENTIONED. (AUTHOR) (U)

UNCLASSIFIED

000084

UNCLASSIFIED

DUC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-644 337 5/2
NAVAL WEAPONS LAB DAHLGREN VA
MICROFICHE USAGE IN THE TECHNICAL LIBRARY AT NAVAL
WEAPONS LABORATORY, (U)
DEC 66 10P LYON, CATHRYN C. ;
REPT. NO. NWL-MAL-1

UNCLASSIFIED REPORT

DESCRIPTORS: (MICROFICHE, LIBRARIES),
EFFECTIVENESS, ABUNDANCE, ECONOMICS, ORDNANCE
LABORATORIES, TECHNICAL INFORMATION CENTERS, NAVY (U)

THIS IS A REPORT OF TWO YEARS EXPERIENCE OF USING
MICROFICHE AND MICROFICHE EQUIPMENT IN THE NAVAL
WEAPONS LABORATORY TECHNICAL LIBRARY.
(AUTHOR) (U)

UNCLASSIFIED

ODC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-645 217 5/2 5/9
AIR FORCE OFFICE OF SCIENTIFIC RESEARCH ARLINGTON VA
DIRECTORATE OF INFORMATION SCIENCES
BOOKS AND LIBRARIES IN THE SCIENTIFIC AGE, (U)
JAN 67 23P WOOSTER, HAROLD ;
PROJ: AF-9769
MONITOR: AFOSR 67-0006

UNCLASSIFIED REPORT

DESCRIPTORS: (•LIBRARIES, SCIENTIFIC RESEARCH),
(•SCIENTIFIC PERSONNEL, LIBRARIES),
DOCUMENTATION, TECHNICAL INFORMATION CENTERS,
REPORTS, TEXTBOOKS, PERIODICALS, SUBJECT
INDEXING, INFORMATION RETRIEVAL, MICROFICHE,
MICROFILM, FILM READERS (U)

THE AUTHOR PROVES TO HIS OWN SATISFACTION THAT THIS
IS INDEED A SCIENTIFIC AGE, NOT FOR ITS CULTURAL
IMPACT BUT ITS NUISANCE VALUE. HE THEN CONTRASTS
THE POPULAR IMAGE OF SCIENTISTS WITH DRAB REALITY,
ENLIVENED ONLY BY THE SCIENTISTS' LOVE-HATE
RELATIONSHIP WITH HIS 'LITERATURE', WHETHER IT BE
READ, WRITTEN OR KEPT IN PILES, EVEN THE LATTER
FUNCTION BEING UNDELEGATABLE. A CURSORY SUMMARY OF
SCIENTISTS' OF THE LITERATURE IN GENERAL AND
LIBRARIES IN PARTICULAR IS FOLLOWED BY PRONOUNCING
ANATHEMA ON THOSE WHO WOULD SUBSTITUTE A TOILET ROLL
OF PRINTOUT FOR BOOKS AS WE KNOW THEM AND A
UNABASHED PAEAN OF PRAISE FOR BOOKS, LIBRARIES AND
LIBRARIANS. (U)

UNCLASSIFIED

000084

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-645 500 5/2
DEFENSE DOCUMENTATION CENTER ALEXANDRIA VA
ANNUAL HISTORICAL SUMMARY, 1 JULY 1965 TO 30 JUNE
1966,

OCT 66 29P REA, ROBERT H. ;

(U)

UNCLASSIFIED REPORT

DESCRIPTORS: (TECHNICAL INFORMATION CENTERS,
DEPARTMENT OF DEFENSE), DATA PROCESSING SYSTEMS,
DATA STORAGE SYSTEMS, INFORMATION RETRIEVAL,
MICROFICHE, COSTS, MANPOWER, PRODUCTION
CONTROL, OPERATION, MILITARY PUBLICATIONS,
REVIEWS, HISTORY, REPRODUCTION, DOCUMENTATION,
ABSTRACTS

(U)

IDENTIFIERS: DEFENSE DOCUMENTATION CENTER,
LINOFILM

(U)

THIS ANNUAL HISTORICAL SUMMARY REFLECTS THE
MAJOR ACTIVITIES OF THE DEFENSE DOCUMENTATION
CENTER (DDC) DURING FISCAL YEAR 1966. NEW
MISSIONS, NEW SERVICES, AND NEW RECORD LEVELS IN
REQUESTS FOR DDC SERVICES ARE REPORTED. INCLUDED
IN THE SUMMARY ARE DESCRIPTIONS OF DDC'S RDT AND
E WORK UNIT DATA BANK, WHICH WAS GIVEN FIRST
PRIORITY ON MANPOWER AND OTHER RESOURCES; THE
CENTER'S CHANGE FROM A REPORT NUMBER INDEX TO
THE DDC INDEX SERVICE. DESCRIBED ARE ADVANCES IN
DATA PROCESSING TECHNIQUES, INCLUDING A COMPUTER-
PRODUCED (LINOFILM) ANNOUNCEMENT PUBLICATION, AND
THE CENTER'S DESIGNATION AS THE DOD REGISTRY OF
USERS OF DEFENSE SCIENTIFIC AND TECHNICAL
INFORMATION AND DOCUMENTS. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-646 037 14/5 17/2 14/2
XEROX CORP ROCHESTER N Y
ELECTROSTATIC IMAGING.
DESCRIPTIVE NOTE: FINAL REPT.,
DEC 66 65P DYAL, JAMES O. J
CONTRACT: NONR-4912(00)
PROJ: NR-277-016 ,RR-011-05-01

(U)

UNCLASSIFIED REPORT

DESCRIPTORS: (ELECTROPHOTOGRAPHY, NAVAL
EQUIPMENT), PROCESSING, IMAGES, CATHODE RAY
TUBES, FACSIMILE COMMUNICATION SYSTEMS, FACSIMILE
EQUIPMENT, DISPLAY SYSTEMS, MICROFICHE, SYSTEMS
ENGINEERING, PHOTOGRAPHIC RECORDING SYSTEMS

(U)

THE REPORT PRESENTS THE RESULTS OF A STUDY PROGRAM
ON THE APPLICATION OF ELECTROSTATIC IMAGING TO NAVAL
SYSTEMS. ELECTROSTATIC IMAGING AND VARIATIONS OF
THE PROCESS ARE DETAILED, AND PARTICULAR APPLICATIONS
FOR BOTH SEABORNE AND LAND-BASED INSTALLATION ARE
DESCRIBED. APPLICABLE AREAS STUDIED AND REPORTED
INCLUDE LARGE SCREEN DISPLAYS, SPECIAL
INSTRUMENTATION, MICROFICHE AND CRT-COMPUTER
PRINTOUT SYSTEMS.

(U)

UNCLASSIFIED

000084

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-650 110 5/2

OFFICE OF NAVAL RESEARCH WASHINGTON D C
SOURCES OF UNCLASSIFIED INFORMATION ON U. S.
GOVERNMENT RESEARCH AND DEVELOPMENT,
FEB 67 21P DEVORE, CHARLES ;

(U)

UNCLASSIFIED REPORT

DESCRIPTORS: (SCIENTIFIC RESEARCH,
DOCUMENTATION), PERIODICALS, UNITED STATES
GOVERNMENT, TECHNICAL INFORMATION CENTERS,
SOURCES, REPORTS, INDEXES, CATALOGS,
ABSTRACTS, MICROFICHE

(U)

THE PAMPHLET CONTAINS A SUMMARY OF READILY
AVAILABLE SOURCES OF UNCLASSIFIED U. S.
GOVERNMENT RESEARCH AND DEVELOPMENT INFORMATION
TOGETHER WITH A BRIEF DISCUSSION OF THE RECENTLY
ADOPTED MICROFICHE SYSTEM DESIGNED TO REDUCE THE
VOLUME, WEIGHT AND COST OF U. S. GOVERNMENT
REPORTS AND OTHER DOCUMENTS. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000084

AD-661 660 9/2 14/5 14/1
SYSTEM DEVELOPMENT CORP SANTA MONICA CALIF
LIBRARY FICHE: AN INTRODUCTION AND EXPLANATION. (U)
DESCRIPTIVE NOTE: PROFESSIONAL PAPER,
OCT 67 14P TEPLITZ, ARTHUR I
REPT. NO. SP-2922/000/01

UNCLASSIFIED REPORT

DESCRIPTORS: (*MICROFICHE, COST EFFECTIVENESS),
(*LIBRARIES, MICROFILM), SYSTEMS ENGINEERING,
OPTIMIZATION, PERIODICALS, AUTOMATION, TIME
SHARING, STANDARDS (U)

THE PAPER DESCRIBES THE NEED FOR A NEW MICROFICHE
REDUCTION RATIO TO PROVIDE MORE SATISFACTORY
MICROFORMS OF BOOKS AND PERIODICALS FOR LIBRARIES OF
THE FUTURE AND URGES ITS CONSIDERATION AND ADOPTION
BY THE MICROFILM INDUSTRY. IT DISCUSSES THE
CONCEPT OF HAVING ONE MICROFICHE FOR EACH BOOK, AND
ITS ADVANTAGES IN USE IN A DISTRIBUTION LIBRARY, OR
IN AN AUTOMATED LIBRARY, USING TIME-SHARING
TECHNIQUES. THE GENERAL CHARACTERISTICS OF LIBRARY
FICHE, THE REDUCTION RATIOS, THE NUMBER OF PAGES, AND
PREPARATION REQUIREMENTS ARE GIVEN. THE ECONOMIC
COSTS OF ORIGINAL AND DUPLICATE LIBRARY FICHE ARE
SPECIFIED. THE SIZE AND SHAPE OF THE POTENTIAL
MARKET IS SPECIFIED, AND FUTURE GROWTH OF THE MARKET
DELINEATED. (AUTHOR) (U)

UNCLASSIFIED

000084

MICROFILM

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000085

AD-400 262

ARMY CHEMICAL-BIOLOGICAL-RADIOLOGICAL ENGINEERING GROUP

ARMY CHEMICAL CENTER MD

U. S. ARMY CBR AGENCY ENGINEERING DATA MICRO-

REPRODUCTION SYSTEM - PROJECT NO. 61001, PHASE 1 (U)

MAR 63 IV SPARKS, JOHN A. I

REPT. NO. ESS

UNCLASSIFIED REPORT

DESCRIPTORS: *DOCUMENTATION, ARMY EQUIPMENT, COSTS,
DATA PROCESSING SYSTEMS, DATA STORAGE SYSTEMS, DESIGN,
INFORMATION RETRIEVAL, LOGISTICS, MICROFILM, MILITARY
FACILITIES, PERSONNEL, PUNCHED CARDS (U)

UNCLASSIFIED

000085

UNCLASSIFIED

CDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000008

AD-419 444

PENNSYLVANIA UNIV PHILADELPHIA MOORE SCHOOL OF
ELECTRICAL ENGINEERING
STORAGE AND RETRIEVAL OF TECHNICAL
INFORMATION.

(U)

DESCRIPTIVE NOTE: INTERIM TECHNICAL REPT.,

JUL 63 1V VAN DAM, ANDRIES I

REPT. NO. 63 22

CONTRACT: NONR 55140

UNCLASSIFIED REPORT

DESCRIPTORS: (1) NAVAL PROCUREMENT, RECORDS),
(1) INFORMATION RETRIEVAL, RECORDS), MECHANICAL
DRAWINGS, MICROFILM, PUNCHED CARDS.

(U)

IDENTIFIERS: 1963, APERTURE CARDS.

(U)

A STUDY OF A LARGE-SCALE INFORMATION RETRIEVAL
SYSTEM FOR TECHNICAL INFORMATION AT THE AVIATION
SUPPLY E WAS MADE. IN PARTICULAR, THE
PROCESSING OF TECHNICAL DATA REQUESTS (TDR)
BY THE TECHNICAL DIVISION (TE) WAS EXAMINED,
AND BOTH AN OVERVIEW OF THE PRESENT SITUATION AND
RECOMMENDATIONS FOR IMPROVEMENT OF THE SYSTEM ARE
GIVEN. GENERALLY, THE PROCESS CAN BE DIVIDED IN TO
TWO PHASES: (1) THE STUDY OF EQUIPMENT FOLDERS,
HANDBOOKS, AND OTHER LIBRARY MATERIAL IN THE
TECHNICIAN'S OWN BUILDING, AND (2) THE STUDY OF
BLUEPRINTS AND SPECIFICATIONS IN THE NAVAL AIR
TECHNICAL SERVICES FACILITY REPOSITORY
(NATSF). THE RECOMMENDATIONS FOR THE FIRST PHASE
ARE TROFOLD: (1) TO STANDARDIZE AND REFORM TDR
INFORMATION TO THE TECHNICIAN AND (2) TO
ELIMINATE THE NON-STANDARDIZED, HARD-COPY STORAGE OF
EQUIPMENT CASE-HISTORIES AND ASSOCIATED INFORMATION
THROUGH THE PURCHASE OF A SEMI-AUTOMATIC MICROFILM RE
TRIEVAL SYSTEM, AND THE PREREQUISITE REORGANIZATION
OF THE PROCESS. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-425 981

AERONAUTICAL SYSTEMS DIV WRIGHT-PATTERSON AFB OHIO
SYSTEM COMPONENTS INFORMATION CENTER, (U)

SEP 63 26P TOLL, MARVIN G. ;

MONITOR: ASD TDR63 695

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: PRESENTED AT THE ASD 1963 SCIENCE
AND ENGINEERING SYMPOSIUM 18-19 SEP 63, WRIGHT-
PATTERSON AIR FORCE BASE, OHIO.

DESCRIPTORS: (*INFORMATION RETRIEVAL, MICROFILM),
(*MICROFILM, INFORMATION RETRIEVAL), (*DATA,
ENGINEERING), (*ABSTRACTS, REPORTS), DOCUMENTATION,
CODING, SPECIFICATIONS, AIR FORCE (U)
IDENTIFIERS: 1963 (U)

THIS REPORT DESCRIBES A PROPOSED INFORMATION
TRANSFER PROGRAM FOR THE SELECTION AND APPROVAL OF
COMPONENTS USED IN AIR FORCE SYSTEMS. IT IS
INTENDED FOR USE BY DESIGNERS AND ALSO BY THE
MANAGEMENT GROUP APPROVING WHAT THE DESIGNERS
RECOMMEND. A METHOD IS PRESENTED SHOWING HOW
TECHNICAL CHARACTERISTICS ARE USED AS THE BASIS FOR
ITEM SELECTION. WHEN A COMPLETE CHARACTERISTIC
DESCRIPTION IS DETERMINED, AN ESTABLISHED INDEX CODE
SUBSTITUTES NUMBERS FOR THE PARTICULAR WORDS THUS
PERMITTING RAPID MACHINE SEARCH AND RETRIEVAL. THE
PROGRAM EMPLOYS 1000-FT MICROFILM FACILITIES FOR
STORAGE AND RETRIEVAL. IT FEATURES TECHNICAL
SUMMARIES OF ENGINEERING DATA AS THE OUTPUT FOR QUICK
DETERMINATION AS TO WHETHER THE SELECTED ITEMS
SATISFY THE REQUIREMENT. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000085

AD-479 447 8/2
NAVAL POSTGRADUATE SCHOOL MONTEREY CALIF
THE MILITARY LIBRARIANS' WORKSHOP (3RD) OCTOBER 8-10,
1959, MONTEREY, CALIFORNIA. (U)
OCT 59 209P

UNCLASSIFIED REPORT

DESCRIPTORS: (*LIBRARIES, *SYMPOSIA),
DOCUMENTATION, MILITARY PUBLICATIONS,
AUTOMATION, STANDARDIZATION, INFORMATION
RETRIEVAL, MICROFILM, COMPUTERS, MANAGEMENT
PLANNING, STANDARDS, TECHNICAL INFORMATION
CENTERS (U)

IDENTIFIERS: TRANSLATIONS (U)

CONTENTS: PAPERS OF GENERAL INTEREST;
INFORMATION RETRIEVAL SYSTEMS; READER
SERVICES; TECHNICAL PROCESSES; LIBRARY
ADMINISTRATION; AND SUMMARY SESSION. (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-615 800

GENERAL ELECTRIC CO PHILADELPHIA PA MISSILE AND SPACE
DIV

A STUDY ON THE APPLICATION OF MICROFILMING TO THE
PRODUCTION, DISTRIBUTION, USE, AND RETRIEVAL OF
TECHNICAL REPORTS. (U)

DESCRIPTIVE NOTE: TECHNICAL INFORMATION SERIES,

APR 65 25P SALISBURY, JOHN T. :

REPT. NO. 6550249

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*INFORMATION RETRIEVAL, MICROFILM),
(*MICROFILM, DOCUMENTATION) (*DOCUMENTATION,
MICROFILM), REPORTS, PROCESSING, PRODUCTION,
DISTRIBUTION, COSTS, HANDLING, STORAGE,
UNITED STATES GOVERNMENT, DEPARTMENT OF
DEFENSE, PHOTOGRAPHIC PROCESSING EQUIPMENT,
PHOTOGRAPHIC TECHNIQUES, SPECIAL PURPOSE CAMERAS (U)
IDENTIFIERS: MICROFICHE (U)

THE STUDY INCLUDES INTRODUCTORY DISCUSSION ON THE
NEED FOR DOCUMENTATION MANAGEMENT AND THE
APPLICATIONS OF MICROFICHE AS MEANS FOR BETTER
UTILIZATION OF TECHNICAL REPORTS HAVING AN HISTORIC
VALUE. THE MICROFICHE IN VARIOUS FORMS IS
COMPLETELY DESCRIBED AND THE MANY ADVANTAGES OF
MICROFICHE ARE GIVEN. BOTH THE MICROFOLIO AND THE
UNITIZED METHODS OF PREPARING MICROFICHE ARE
DISCUSSED FROM THE STANDPOINTS OF MAKING AND USING
THEM. A SELECTION OF SURVEYED EQUIPMENT IS INCLUDED
TOGETHER WITH COST ESTIMATES AND RECOMMENDATIONS FOR
IMPLEMENTING DIFFERENT MICROFICHE PREPARATION METHODS
TO HANDLE A VOLUME UP TO 2000 PAGES PER MONTH TO A
PEAK VOLUME THAT IS MORE THAN 2000 PAGES PER MONTH.
(AUTHOR) (U)

UNCLASSIFIED

ODC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000005

AD-620 279

MITRE CORP BEDFORD MASS

SUMMARY OF EFFORTS EXPENDED ON THE CONCEPT OF
'DYNAMIC UPDATE OF A MICROFILM FILE', (U)

AUG 65 94P BARBOZA, G. ;

REPT. NO. TM-04024

CONTRACT: AF19 620 2390

PROJ: 614.1

MONITOR: ESO , TR-65-90

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (MICROFILM, MAGNETIC RECORDING
SYSTEMS), (MAGNETIC RECORDING SYSTEMS,
MICROFILM), (INFORMATION RETRIEVAL,
MICROFILM), DISPLAY SYSTEMS, DATA STORAGE
SYSTEMS, FILM READERS, SPECIAL PURPOSE COMPUTERS,
COMMAND - CONTROL SYSTEMS (U)
IDENTIFIERS: BINARY DIGITS, BINARY-DECIMAL CODE,
COMPUTER WORDS, SHIFT REGISTERS (U)

A DESCRIPTION IS GIVEN OF THE HARDWARE DEVELOPED AS
A FEASIBILITY PROTOTYPE FOR A DYNAMICALLY UPDATABLE
MICROFILM INFORMATION STORAGE, RETRIEVAL, AND DISPLAY
SYSTEM. DYNAMIC UPDATING IS ACCOMPLISHED BY USING A
MAGNETIC STRIP ON THE MICROFILM IN CONJUNCTION WITH
READ/WRITE CIRCUITS. DATA ARE STORED IN BINARY
CODED DECIMAL FORMAT, 22 NUMERICAL CHARACTERS OF
CHANGEABLE INFORMATION OR 128 BITS TO EACH MICROFILM
IMAGE, GIVING A TOTAL MAGNETIC STORAGE CAPACITY OF
MORE THAN 700,000 BITS FOR A 100-FOOT REEL. A
VARIABLE WORK LENGTH WAS ASSIGNED. A CONSECUTIVE
SEARCH CAPABILITY WAS BUILT TO IMPROVE THE RETRIEVAL
RESPONSE TIMES ASSOCIATED WITH THE FORWARD ONLY SEARCH
TECHNIQUE IN COMMERCIAL READER/RETRIEVERS.
CONSECUTIVE SEARCH IS DEFINED AS THE CAPABILITY TO
STORE THE PRESENT POSITION OR FRAME NUMBER LOCATION
ON THE FILM REEL AND SEARCH IN EITHER DIRECTION
(I.E. FORWARD OR REVERSE). LOGICALLY, FIRST-STAGE
COMPARISON DETERMINES THE RELATIVE LOCATION OF A
DESIRED FRAME NUMBER WITH RESPECT TO PRESENT POSITION
ALONG THE LENGTH OF A FILM REEL. IF THE REEL HAD
JUST BEEN LOADED, THE CONTENTS OF THE FRAME COUNTER
SHIFT REGISTER IS ZERO. FOR PREVIOUS REQUESTS, THE
CONTENTS OF THE FRAME COUNTER SHIFT REGISTER WILL BE
A DIRECT INDICATION OF PRESENT POSITION WITHIN THE
FILM REEL. THREE POSSIBLE LOGICAL DECISIONS IS
MADE AS A RESULT OF THE FIRSTSTAGE COMPARISON. (U)

UNCLASSIFIED

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000085

AD-621 479

SMC EQUIPMENT MANUALS FIELD OFFICE CHAMBERSBURG PA
IMPROVEMENTS BRANCH

AN EXPERIMENTAL INVESTIGATION OF MICROPRINTING BY THE
OFFSET METHOD. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,

NOV 64 9P REDD, OLIVER F. ;

HEPT. NO. 65-10

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•PRINTING, SCIENTIFIC RESEARCH),
PHOTOGRAPHIC TECHNIQUES, MICROFILM,
MICROPHOTOGRAPHY, PHOTOENGRAVING

(U)

IDENTIFIERS: OFFSET PRINTING, MICROPRINTING

(U)

CONTINUOUS TONE ORIGINAL ART WAS PHOTOGRAPHED TO
PRODUCE A SCREENED NEGATIVE WHICH WAS CONTACT
PRINTED. THE FULLSCALE POSITIVE HALFTONE WAS
PHOTOGRAPHICALLY REDUCED 9.99 X TO MAKE A SECOND
NEGATIVE WHICH WAS CONTACT PRINTED ON THE OFFSET
PLATE. THIS REDUCTION WAS EQUIVALENT TO PRINTING
HALFTONES OF 665 AND 745 LINES PER INCH.
SUBSEQUENT PRINTING STEPS WERE DONE USING THE
CONVENTIONAL OFFSET METHOD. A LEXICAL
(UNSCREENED) PAGE WAS SIMILARLY REDUCED AND
PRINTED. MACROSCOPIC EXAMINATION OF PRINTED
MATERIALS MENTIONED ABOVE INDICATED THAT THE
HALFTONES WERE GOOD ENOUGH FOR IDENTIFICATION IN P-
MANUALS, BUT WERE QUESTIONABLE FOR OTHER USES.
REPRODUCTION OF 10 POINT LEXICAL MATERIAL WAS
EXCELLENT. MICROSCOPIC EXAMINATION AND SUCCESSIVE
TRIALS OF OFFSET PRINTING OF THE SAME SCREENED ART
INDICATED THAT THE TONAL RANGE OF THE ART MUST BE
REDUCED CONSIDERABLY TO AVOID COMPLETE LOSS OF
HIGHLIGHTS OR LOSS OF TONE IN THE SHADOWS.

(AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000085

AD-621 480

SMC EQUIPMENT MANUALS FIELD OFFICE CHAMBERSBURG PA
IMPROVEMENTS BRANCH

AN EXPERIMENTAL INVESTIGATION OF MICROPRINTING BY THE
OFFSET METHOD, SUPPLEMENT. (U)

DESCRIPTIVE NOTE: TECHNICAL REPT.,

AUG 65 8P REDD, OLIVER F. ;

REPT. NO. 65-10 SUPPL.

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO AD-621 479.

DESCRIPTORS: (PRINTING, SCIENTIFIC RESEARCH),

PHOTOGRAPHIC TECHNIQUES, MICROFILM,

MICROPHOTOGRAPHY, PHOTOENGRAVING (U)

IDENTIFIERS: OFFSET PRINTING, MICROPRINTING (U)

THE ORIGINAL REPORT COVERED THE EXPERIMENTAL WORK
OF PRINTING LEXICAL MATERIAL AND HALF-TONES AT A
REDUCTION OF 9.55 TO 1. THE QUALITY OF THE SAMPLES
PRODUCED CLEARLY INDICATED THAT THE LIMITATION OF THE
OFFSET METHOD HAD NOT BEEN REACHED FOR LEXICAL
MATERIAL. HOWEVER, THE HALFTONES PRINTED AT 665
AND 745 LINES PER INCH (26 AND 29 LINES PER MM)
INDICATED THAT THE TONAL RANGE SHOULD BE REDUCED TO
PREVENT LOSS OF DETAIL IN BOTH HIGH LIGHT AND SHADOW
AREAS. A SUPPLEMENTARY TEST HAS BEEN MADE PRIMARILY
TO CHECK THE POSSIBILITY OF FURTHER REDUCTION OF
LEXICAL MATERIAL. AS LINE ART IS LEGIBLE AT
GREATER REDUCTION THAN CONTINUOUS TONE, IT WAS
INCLUDED IN THIS TEST. A SURVEY OF ART PREPARATION
GROUPS SHOWED A PREFERENCE FOR AND A TREND TOWARD
MORE LINE ART AND FEWER HALFTONES. THIS PREFERENCE
AND TREND WILL FAVOR MICROPRINTING BY MAKING GREATER
REDUCTION PRACTICAL, AND IS ANOTHER REASON FOR
INCLUDING LINE ART. A MICROCOPY TEST CHART WAS
INCLUDED TO PROVIDE A BASIS FOR QUANTITATIVE
EVALUATION OF THE REDUCTIONS. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000095

AD-670 089 5/2 9/2
AUERBACH CORP PHILADELPHIA PA
INFORMATION STORAGE AND RETRIEVAL, A STATE-OF-THE-ART
REPORT, (U)
SEP 64 249P BERUL, LAWRENCE ;
REPT. NO. PR-7500-145,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (•INFORMATION RETRIEVAL, STATE-OF-
THE-ART REVIEWS), FEEDBACK, REPORTS, DATA,
CLASSIFICATION, SUBJECT INDEXING, LIBRARIES,
ABSTRACTS, PROCESSING, PERIODICALS, INDEXES,
COSTS, TECHNICAL INFORMATION CENTERS,
MICROFILM, MAGNETIC TAPE, COMPUTERS,
PROGRAMMING (COMPUTERS), PROGRAMMING LANGUAGES,
DICTIONARIES (U)
IDENTIFIERS: KWIC INDEX, COORDINATE INDEXING,
THESAURI, FILE STRUCTURES, DESCRIPTIVE
CATALOGING, CITATION INDEX, SELECTIVE DISSEMINATION
OF INFORMATION, NATIONAL AERONAUTICS AND SPACE
ADMINISTRATION (U)

THE OBJECTIVE OF THE STUDY WAS TO COMPILE RELEVANT
BACKGROUND AND INTERPRETIVE MATERIAL AND PREPARE A
STATE-OF-THE-ART REPORT WHICH WOULD PUT THE
DEVELOPMENTS IN THE IS AND R FIELD INTO
PERSPECTIVE AND SERVE TO ORIENT A NEWCOMER INTO THIS
FIELD. SECTION II DESCRIBES IS AND R AS A
PROBLEM IN PERSON-TO-PERSON COMMUNICATIONS. SECTION
III PRESENTS BASIC IS AND R CONCEPTS AND
TECHNIQUES. IT TRACES THE HISTORY OF TRADITIONAL
LIBRARIANSHIP THROUGH EARLY IS AND R SYSTEMS AND
UP TO THE PRESENT STATE-OF-THE-ART. SECTION IV
DESCRIBES THE INFORMATION PRODUCTS AND SERVICES WHICH
ARE BEING EMPLOYED TO AID THE PROCESS OF
COMMUNICATION BETWEEN THE ORIGINATORS AND USERS OF
INFORMATION. SECTION V CATEGORIZES THE
INFORMATION SYSTEM OPERATIONS REQUIRED TO PRODUCE THE
PRODUCTS AND SERVICES, INTO EIGHT BASIC SYSTEM
FUNCTIONS FROM WHICH ALL IS AND R SYSTEMS CAN BE
ASSEMBLED. THESE BASIC FUNCTIONS ARE:
ORIGINATION, ACQUISITION, SURROGATION, ANNOUNCEMENT,
INDEX OPERATION, DOCUMENT MANAGEMENT, CORRELATION,
AND END-USE. SECTION VI DESCRIBES FIVE EXAMPLES
OF IS AND R APPLICATIONS OR SYSTEMS. (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-638 928 5/2
MILITARY ACADEMY WEST POINT N Y
MILITARY LIBRARIANS WORKSHOP (9TH) HELD AT THE UNITED
STATES MILITARY ACADEMY, WEST POINT, NEW YORK, 2-5
NOVEMBER 1969. (U)
DESCRIPTIVE NOTE: CONFERENCE PROCEEDINGS.
NOV 69 110P

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE: SEE ALSO AD-632 300.

DESCRIPTORS: (LIBRARIES, MILITARY
ORGANIZATIONS), SYMPOSIA, DEPARTMENT OF DEFENSE,
DATA PROCESSING SYSTEMS, PERIODICALS, MICROFILM,
NAVY, ARMY, DOCUMENTATION, INFORMATION
RETRIEVAL (U)
IDENTIFIERS: THESAURI, INFORMATION SYSTEMS (U)

UNCLASSIFIED

DOC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-640 115 9/2 9/2
8002-ALLEN APPLIED RESEARCH INC BETHESDA MD
MECHANIZATION STUDY OF THE RECON CENTRAL,
RECONNAISSANCE DIVISION, AIR FORCE AVIONICS LAB.,
WRIGHT-PATTERSON AFB, OHIO. (U)
DESCRIPTIVE NOTE: FINAL TECHNICAL REPT.,
SEP 66 34P KERSHAW, G. A. ; KROWDER, O. ;
DAVIS, J. E. ; LOGES, E. G. ; MERENDINI, E. ;
REPT. NO. 914-1-20,
CONTRACT: DSA-7-15489,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (1) TECHNICAL INFORMATION CENTERS,
AUTOMATION), PUNCHED CARDS, INPUT-OUTPUT
DEVICES, AIR FORCE, INFORMATION RETRIEVAL,
MILITARY INTELLIGENCE, DATA STORAGE SYSTEMS,
MICROFILM (U)
IDENTIFIERS: COORDINATE INDEXING, PEEK-A-BOO
CARDS, FLEXOWRITERS (U)

INFORMATION STORAGE AND RETRIEVAL FUNCTIONS AT THE
RECON CENTRAL ARE PARTIALLY MECHANIZED BY A
SYSTEM COMPOSED OF 'PEEK-A-BOO' COORDINATE INDEX
CARDS, A FLEXOWRITER AUTOMATIC TYPEWRITER WITH AN
EAM PUNCHED CARD READER INPUT AND AN AUTOMATIC
'PEEK-A-BOO' CARD READER, AND VARIOUS TYPES OF
COPYING DEVICES. THE STORED INFORMATION IS
PRIMARILY IN DOCUMENT ABSTRACT FORM ON MICROFILM
CHIPS THAT ARE ON UNPUNCHED APERTURE CARDS. THE
SYSTEM PRODUCES FOR A SEARCH REQUESTER LISTS OF
RETRIEVED ABSTRACT ACCESSION NUMBERS WITH
CORRESPONDING DOCUMENT TITLES, AND, IF DESIRED,
ENLARGED COPIES OF THE SELECTED MICROFILM CHIPS.
RECON CENTRAL ESTIMATES THAT COST INVESTMENT IN
THIS SEMIAUTOMATED SYSTEM IS ABOUT ONE-TENTH THAT OF
A FULLY COMPUTERIZED SYSTEM GIVING THE SAME
PERFORMANCE IN THEIR APPLICATION. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-640 122 5/2 9/2
800Z-ALLEN APPLIED RESEARCH INC BETHESDA MD
MECHANIZATION STUDY OF THE TECHNICAL LIBRARY, NAVAL
ORDNANCE LABORATORY, WHITE OAK, MARYLAND. (U)
DESCRIPTIVE NOTE: TECHNICAL REPT.,
SEP 46 110P KERSHAW, G. A. ICROWDER, D. J
DAVIS, J. E. ILOGES, E. G. IHERENDINI, E. J
REPT. NO. 914-1-27,
CONTRACT: DSA-7-19489,

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (LIBRARIES, AUTOMATION), NAVY,
ORDNANCE, REPORTS, DIGITAL COMPUTERS,
INFORMATION RETRIEVAL, PERIODICALS, ELECTRONIC
ACCOUNTING MACHINES (U)

THE LIBRARY AT THE NAVAL ORDNANCE LABORATORY
(NOL) USES THE IBM 7090 COMPUTER FOR INFORMATION
STORAGE AND RETRIEVAL OF ITS TECHNICAL REPORTS
COLLECTION. ALL TECHNICAL REPORTS ARE EVENTUALLY
ENTERED ON MICROFILM, WITH THE PRESENT COLLECTION
TOTALING ABOUT 190,000. HOWEVER, ONLY DOCUMENTS
RECEIVED FROM 1958 TO THE PRESENT ARE AVAILABLE FOR
COMPUTER SEARCHES. PLANS CALL FOR AN ANNUAL
LISTING BY EAM TECHNIQUES, OF PERIODICALS RECEIVED
AT NOL. DURING FISCAL 1966, PUNCHED CARD
PREPARATION WILL BE COMPLETED. IN ADDITION, NOL
AND THE APPLIED PHYSICS LABORATORY AT JOHNS
HOPKINS ARE CONSIDERING THE POSSIBILITY OF
COOPERATIVELY PRODUCING AN ANNUAL LISTING OF
PERIODICALS AVAILABLE IN TECHNICAL LIBRARIES IN THE
WASHINGTON-MARYLAND AREA. THERE IS ALSO A
STUDY BEING CONDUCTED AT PRESENT TO DETERMINE THE
FEASIBILITY OF A PRINTED BOOK CATALOG. THE
COMPUTER PROGRAM HAS PROVIDED MORE EXHAUSTIVE
SEARCHES AND MORE DETAILED SUBJECT ANALYSIS OF
REPORTS AND HAS ELIMINATED THE TIME LAG IN PROCESSING
SUBJECT INFORMATION. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-647 174 5/2
LOCKHEED MISSILES AND SPACE CO SUNNYVALE CALIF
COMPUTER-PRODUCED MICROFILM LIBRARY CATALOG, (U)
OCT 66 21P KUZUMPLIK, W. A. ILANGE, R.
T. 1
REPT. NO. LMSD-50-10-66-6

UNCLASSIFIED REPORT
AVAILABILITY: TO BE PUBLISHED IN AMERICAN
DOCUMENTATION V18 N2 APRIL 1967.

DESCRIPTORS: (*MICROFILM, *CATALOGS),
(*LIBRARIES, CATALOGS), INDEXES, FILM
READERS, INFORMATION RETRIEVAL, COMPUTERS,
INPUT-OUTPUT DEVICES, TECHNICAL INFORMATION
CENTERS (U)

THE COMPUTERIZED CATALOG SYSTEM INSTALLED AND
OPERATING DELIVERS THE FOLLOWING PRODUCTS IN
ACCORDANCE WITH DESIGN REQUIREMENTS: (1) AN
UPDATED LIBRARY CATALOG IN MICROFILM FORM (2)
A LISTING OF NEW PUBLICATIONS ADDED, USING THE
KEYWORD-IN-TITLE (KWIT) FORMAT (3) AN
UPDATED REPORT OF OPEN-ENTRY ITEMS CONTAINED IN THE
LIBRARY (4) A SOURCE AUTHORITY LIST, WITH
APPROPRIATE CROSS REFERENCES (5) A SUBJECT
AUTHORITY LIST, WITH 'SEE' AND 'SEE ALSO' REFERENCES
WHEN APPROPRIATE THESE PRODUCTS ARE PROCESSED
QUARTERLY WITH THE EXCEPTION OF THE KWIT WHICH IS
ISSUED SEMI-MONTHLY. BASIC TO ALL PRODUCTS IS THE
SYSTEM-DERIVED AND MAGNETIC-TAPE-STORED MASTER FILE
ON ALL PUBLICATIONS CONTAINED IN THE LIBRARY TOGETHER
WITH THE ABILITY TO DELETE, ADD, OR CHANGE RECORDS ON
THE MASTER FILE AS DETERMINED BY THE CONTROLLING
ORGANIZATION, NAMELY, THE LIBRARY MANAGEMENT.
(AUTHOR) (U)

UNCLASSIFIED

ODC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000085

AD-684 960 5/2 9/2
DAVID TAYLOR MODEL BASIN WASHINGTON D C APPLIED
MATHEMATICS LAB
NAVY AUTOMATED RESEARCH AND DEVELOPMENT INFORMATION
SYSTEM (NARDIS) PROGRESS REPORT, JULY 1966. (U)
DESCRIPTIVE NOTE: RESEARCH AND DEVELOPMENT REPT.,
AUG 66 J9P GRAY, GILBERT R. I
DUCKENFIELD, THOMAS A. FUCHS, JOSEPH L. I
PROJ: R-F099-88-01
MONITOR: DTMB 2227

UNCLASSIFIED REPORT

DESCRIPTORS: (•SYSTEMS ENGINEERING, •INPUT-OUTPUT
DEVICES), (•DOCUMENTATION, AUTOMATION),
COMPUTERS, NAVAL RESEARCH, INFORMATION
RETRIEVAL, DATA STORAGE SYSTEMS, MAGNETIC TAPE,
MICROFILM, PROBLEM SOLVING (U)

THE REPORT IS A SUMMARY OF NARDIS (NAVY
AUTOMATED RESEARCH AND DEVELOPMENT
INFORMATION SYSTEM) OPERATIONS FOR FISCAL YEAR
1966. MORE THAN 900 REQUESTS (AMOUNTING TO
NEARLY 900 QUERIES) WERE PROCESSED, THE R AND V
DATA BANK WAS DOUBLED; AND NEW RESPONSIBILITIES WERE
ASSIGNED. (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-661 789 5/2
PLANNING RESEARCH CORP LOS ANGELES CALIF
TECHNICAL DATA HANDLING SURVEY. VOLUME 1. REVIEW OF
PROJECTED NAVY USER REQUIREMENTS AND CURRENT VENDOR
CAPABILITIES. (U)
DESCRIPTIVE NOTE: FINAL REPT.,
AUG 67 303P BERNSTEIN, GEORGE B. I
REPT. NO. PRC-R-1029
CONTRACT: N00600-67-C-0999

UNCLASSIFIED REPORT

DESCRIPTORS: (DATA PROCESSING SYSTEMS, MILITARY
REQUIREMENTS), NAVY, MANAGEMENT PLANNING,
STANDARDIZATION, WEAPON SYSTEMS, SCIENTIFIC
RESEARCH, INVENTORY, DOCUMENTATION, MICROFILM,
DATA, STANDARDS (U)

THE REPORT REPRESENTS THE INITIAL PHASE OF A
RESEARCH STUDY OF NAVY USER REQUIREMENTS FOR
TECHNICAL DATA HANDLING AND THE ABILITY OF THE
INFORMATION PROCESSING INDUSTRY TO SATISFY THESE
REQUIREMENTS 5, 10, AND 15 YEARS IN THE FUTURE.
THE PURPOSE OF THE PROGRAM IS TO ASSIST THE
DEPARTMENT OF DEFENSE AND NASA IN IDENTIFYING
LONG-RANGE CAPABILITIES AND FORMULATING
STANDARDIZATION GOALS FOR TECHNICAL DATA HANDLING AND
DATA EXCHANGE. THE REPORT DESCRIBES PRESENT AND
PROJECTED 5-YEAR CAPABILITIES OF THE INFORMATION
PROCESSING INDUSTRY TO MEET CURRENT AND PROJECTED
NAVY USER REQUIREMENTS FOR TECHNICAL DATA
HANDLING. (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000089

AD-667 173 5/2 9/2
SYSTEM DEVELOPMENT CORP FALLS CHURCH VA
DEFENSE DOCUMENTATION CENTER FIVE YEAR PLAN STUDY:
APPENDIX. (U)
DESCRIPTIVE NOTE: TECHNICAL MEMO.,
SEP 66 16P WATSON, R. I
REPT. NO. TH-WO-268/004/00

UNCLASSIFIED REPORT

DESCRIPTORS: (*DOCUMENTATION, *STATE-OF-THE-ART
REVIEWS), (*DATA PROCESSING SYSTEMS,
DOCUMENTATION), INFORMATION RETRIEVAL,
DEPARTMENT OF DEFENSE, DIGITAL COMPUTERS,
COMPUTER PERSONNEL, PROGRAMMING LANGUAGES,
TECHNICAL INFORMATION CENTERS, SUBROUTINES, TIME
SHARING, MAGNETIC TAPE, PRINTING, MICROFILM,
CLASSIFICATION, STATISTICAL DATA (U)
IDENTIFIERS: DEFENSE DOCUMENTATION CENTER,
THESAURI, ON-LINE SYSTEMS (U)

THIS APPENDIX CONTAINS RECOMMENDATIONS FOR COMPUTER
RELATED DEVELOPMENTS IN THE NEXT FIVE YEARS. MANY
OF THE DEVELOPMENTS ARE LISTED OR IMPLIED UNDER
FUNCTIONAL HEADINGS IN OTHER SECTIONS OF THE REPORT.
FOR THE SAKE OF CLARITY THEY ARE LISTED HERE IN A
SINGLE SECTION. SOME OF THESE DEVELOPMENTS ARE
EXPECTED TO EXTEND BEYOND THE FIVE YEAR PERIOD. (U)

RELATED EQUIPMENT

UNCLASSIFIED

ODC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-240 073

XEROX CORP ROCHESTER N Y

THE DEVELOPMENT OF A MINICARD VIEWER PROCESSOR MX-1992 (XN-11)/G (U)

JUN 61 IV

CONTRACT: AF30 602 1923

UNCLASSIFIED REPORT

DESCRIPTORS: *DATA PROCESSING SYSTEMS, *READING MACHINES, DATA STORAGE SYSTEMS, DESIGN, FILM READERS, OPERATION, OPTICAL EQUIPMENT, PRINTING, TEST EQUIPMENT (U)

IDENTIFIERS: MINICARD SYSTEM (U)

A PROPRIETARY DEVICE, TO BE KNOWN AS THE 914 OFFICE COPIER, WAS DEVELOPED. A MODIFIED DESIGN OF THIS UNIT PROVIDED THE PRINT-OUT PORTION OF THE CONTRACT MACHINE. MINICARD-HANDLING TECHNIQUES DEVELOPED BY THE EASTMAN KODAK COMPANY WERE ADAPTED AND TAILORED TO THE NEEDS OF THE DEVELOPMENTAL MACHINE. AN OPTICAL SYSTEM WAS CONCEIVED AND CONSTRUCTED, USING BENCH-TEST TECHNIQUE WITH MOCK-UPS. VARIOUS LIGHT SOURCES WERE TESTED IN THE VIEWING-PROJECTION SYSTEM AND A COMPROMISE SELECTION WAS MADE ON THE BASIS OF STABILITY, LIGHT INTENSITY, AND GENERATED HEAT. A SYSTEM OF SCAN EXPOSURE OF THE MINICARD WAS DEVELOPED, INVOLVING SYNCHRONIZED SCANNING OF A MINICARD WITH ENLARGEMENT EXPOSURE ON A REVOLVING XEROGRAPHIC DRUM. THE OPTICAL SYSTEM WAS ARRANGED TO PROVIDE VISUAL INSPECTION BY THE OPERATOR OF THE 12 DOCUMENTS ON THE MINICARD, ENLARGED 60 TIMES ON A TRANSLUCENT VIEWING SCREEN. RAPID SELECTION OF DOCUMENTS WAS PROVIDED BY A SINGLE 12-POSITION SWITCH AND PRINT-OUT OF ANY SELECTED DOCUMENT BY A PUSH-BUTTON SWITCH. ONLY ONE CONTROL WAS MADE MANUAL AND IT WAS EQUIPPED WITH POSITIVE POSITIONING DETENTS TO AVOID A REQUIREMENT FOR A HIGH DEGREE OF OPERATOR SKILL OR DEXTERITY. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-263 593

XENOX CORP ROCHESTER N Y

DEVELOPMENT TEST SUPPORT FOR MINICARD VIEWER

PROCESSOR MX-1993(XW-1)G

JUL 61 1V

CONTRACT: AF30 602 2343

(U)

UNCLASSIFIED REPORT

DESCRIPTORS: *MICROPHOTOGRAPHY, *PHOTOGRAPHIC
RECORDING SYSTEMS, DATA STORAGE SYSTEMS, FILM READERS,
MAINTENANCE, PROCUREMENT

(U)

IDENTIFIERS: MINICARD SYSTEM

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-290 749

FAIRCHILD CAMERA AND INSTRUMENT CORP SYOSSET N Y
SCREENING VIEWER

(U)

1V

UNCLASSIFIED REPORT

DESCRIPTORS: *FILM PROJECTORS, *FILM READERS, AMPLIFIERS, CIRCUITS, CONTROL SYSTEMS, DESIGN, DRIVE SPRCKETS, DRIVES, ELECTRONIC EQUIPMENT, FEEDBACK, FOCUSING, FULL-WAVE RECTIFIERS, FUNCTIONS, INCANDESCENT LAMPS, LENSES, MATHEMATICAL ANALYSIS, MIRRORS, OPTICAL EQUIPMENT, PHOTOGRAPHIC FILM, POWER TRANSMISSION BELTS, SERVO MECHANISMS, VARIABLE SPEED DRIVES, WIRING DIAGRAMS

(U)

THIS FINAL TECHNICAL REPORT ON THE SCREENING VIEWER COVERS THREE PHASES: ELECTRICAL CONTROLS, MYLAR BELT STUDIES, AND OPTICAL SYSTEM. THE REPORT ON THE ELECTRICAL CONTROLS DESCRIBES THE POWER INPUT, MAGNIFICATION CONTROL SYSTEM, THE FILM TRANSPORT CIRCUITRY, LAMP CONTROL, AND DESIGN IMPROVEMENTS INCORPORATED DURING ASSEMBLY. THE STUDIES ON THE MYLAR BELT DESCRIBE THE FILM FLATTENING TECHNIQUE USED IN THE VIEWER, BELT TRACKING, ADVERSE EFFECTS OF FLEXIBLE ROLLER MOUNTINGS, TEST RESULTS ON THE MYLAR BELT DRIVE AND ON MYLAR BELT LIFE. THE OPTICAL SYSTEM REPORT DESCRIBES THE TYPE OF SYSTEM USED AND AN EVALUATION OF THE MERITS AS WELL AS SHORTCOMINGS INHERENT IN SUCH A SYSTEM. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-419 214

JOHNS HOPKINS UNIV BALTIMORE MD INST FOR COOPERATIVE
RESEARCH

A POSSIBLY INEXPENSIVE ATTACHMENT FOR A MICROFILM
READER TO PERMIT SYNCHRONIZED COORDINATE SEARCHING, (U)
4P O'CONNOR, JOHN ;

UNCLASSIFIED REPORT

REPRINT FROM THE JNL. OF CHEMICAL DOCUMENTATION, 3,
PP. 29-32, 1963. (COPIES ALSO AVAILABLE FROM DDC)

SUPPLEMENTARY NOTE:

DESCRIPTORS: (=MICROFILM, FILM READERS), (=FILM
READERS, ATTACHMENT), READING, INDEXES, DESIGN,
ERRORS, OPERATION, SELECTION

IDENTIFIERS: 1961

(U)

(U)

REPRINT FROM THE JOURNAL OF CHEMICAL DOCUMENTATION, 1963:
A POSSIBLY INEXPENSIVE ATTACHMENT FOR A MICROFILM READER
TO PERMIT SYNCHRONIZED COORDINATE SEARCHING.

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-419 893

HUGHES AIRCRAFT CO CULVER CITY CALIF

PROTOTYPE AUDIO-VISUAL AID.

(U)

DESCRIPTIVE NOTE: FINAL REPT.

AUG 63 10P

REPT. NO. FR63 11 208

CONTRACT: NONR4098 00

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (FILM READERS, DESIGN), DISPLAY
SYSTEMS, PHOTOGRAPHIC EQUIPMENT, SOUND REPRODUCTION
SYSTEMS, MODELS (SIMULATIONS)

(U)

IDENTIFIERS: AUDIO-VISUAL AID, 1963, FILM VIEWER,
VIDEOSONIC, ELECTROCLAR

(U)

A LABORATORY MODEL OF A HEAD-WORN FILM VIEWER, SOME
OF THE STEPS IN ITS DEVELOPMENT, AND ITS POTENTIAL
USES ARE DISCUSSED. DESIGN AND CONSTRUCTION OF THE
FILM VIEWER WAS THE FIRST STEP IN A PROGRAM TO
DEVELOP A COMPACT AUDIO-VISUAL DEVICE WHICH CAN BE
WORN BY THE USER AND WHICH WILL PRESENT COORDINATED
VISUAL AND VERBAL GUIDANCE TO TASK PERFORMANCE. IT
WAS BUILT TO DEMONSTRATE ENGINEERING FEASIBILITY AND
TO PROVIDE A VEHICLE FOR LABORATORY STUDY OF THE USES
OF SUCH DEVICES. CONTEMPLATED LABORATORY USES
INCLUDE DISPLAY PARAMETER STUDIES AND EVALUATION OF
THE DEVICE'S EFFECTIVENESS IN AIDING HUMAN
PERFORMANCE. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-419 914

BAUSCH AND LOMB INC ROCHESTER N Y
UNIT RECORD SCREENING VIEWER.

(U)

IV FINAL REPT:
MONITOR: TDR63 247 UNCLASSIFIED REPORT

UNCLASSIFIED REPORT

SUPPLEMENTARY NOTE:

DESCRIPTORS: (SLIDE PROJECTORS, PHOTOGRAPHIC
RECORDING SYSTEMS), OPTICAL EQUIPMENT, MICROFILM,
POSITIONING DEVICES (MACHINERY), LENSES, DESIGN,
TEMPERATURE, DRIVES

(U)

IDENTIFIERS: 1967, UNIT RECORD SCREENING VIEWER

(U)

THE UNIT RECORD SCREENING VIEWER IS A HIGH
RESOLUTION, REAR PROJECTION VIEWER DESIGNED PRIMARILY
FOR SCREENING LARGE NUMBERS OF MOUNTED 70 X 100
MILLIMETER FILM CHIPS. THE PHOTOGRAPHIC IMAGES AND
THE HUMAN READABLE CODE RECORDED ON THE FILM CHIP ARE
PROJECTED AT A FIXED 6.9X MAGNIFICATION ON THE
INTEGRAL SCREEN. THE MOTORIZED CHIP CHANGER
MECHANISM MAY BE OPERATED FROM EITHER LOCAL OR REMOTE
POSITIONS FOR SEQUENTIAL SCREENING OF UP TO 64
MOUNTED CHIPS WHEN LOADED IN AN APPROPRIATE MAGAZINE.
CHIP PLACEMENT IN THE PROJECTION FOCAL PLANE IS
ACCOMPLISHED BY THE USE OF AN ELECTRO-MECHANICAL
SHAFT POSITIONER CONTAINING A TWO POSITION STOP CAM
AND PAUL DEVICE. THE TWO CAM POSITIONS CORRESPOND
TO THE LOAD AND OPERATE POSITIONS OF THE
INSTRUMENT. THE LARGE PROJECTION FORMAT REQUIRED A
NOVEL CONDENSEN SYSTEM UTILIZING RECTANGULAR SHAPED
LENSES ALLOWING FOR SPACE CONSIDERATIONS. THE FILM
GATE TEMPERATURE IS HELD WITHIN REASONABLE LIMITS BY
THE INCORPORATION OF A HEAT CONTROLLING MULTI-LAYER
FILTER IN THE CONDENSER SYSTEM. A MAJOR PROBLEM
WAS CONCERNED WITH THE MAGAZINE ADVANCE REQUIREMENTS.
THE MOUNT THICKNESS AND MAGAZINE SLOT DIMENSION
DECEED THAT THE MAGAZINE MUST BE ADVANCED ONE STEP
PLUS OR MINUS 0.003 INCHES TO PERMIT THE MOUNT TO RE-
ENGAGE PROPERLY IN THE MAGAZINE. BOTH THE MOUNT
AND THE SLOT HAD SQUARE EDGES THUS REQUIRING PRECISE
INDEXING. (AUTHOR)

(U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-426 137

INFORMATION DYNAMICS CORP WAKEFIELD MASS

STUDY OF NIMBUS SATELLITE PHOTOGRAPH ARCHIVES SYSTEM
REQUIREMENTS FOR UNITIZED MICROFORM. (U)

DESCRIPTIVE NOTE: FINAL REPT.

FEB 63 29P

REPT. NO. IDC R1101 1

UNCLASSIFIED REPORT

AVAILABILITY: MICROFILM ONLY AFTER ORIGINAL COPIES
EXHAUSTED.

SUPPLEMENTARY NOTE:

DESCRIPTORS: (*METEOROLOGICAL SATELLITES, DATA
PROCESSING SYSTEMS), (*CLOUD COVER, PHOTOGRAPHIC
RECONNAISSANCE), PHOTOGRAPHIC RECONNAISSANCE, DATA
STORAGE SYSTEMS, METEOROLOGY, OPERATIONS RESEARCH,
DOCUMENTATION, MANAGEMENT ENGINEERING, DESIGN, COSTS,
PHOTOGRAPHIC EQUIPMENT, INFORMATION RETRIEVAL (U)
IDENTIFIERS: 1963, NIMBUS, TIROS (U)

A STUDY IS PRESENTED OF THE REQUIREMENTS OF THE
NIMBUS SATELLITE PHOTOGRAPH ARCHIVES SYSTEM
FROM THE STANDPOINT OF THE APPLICABILITY OF A
UNITIZED MICROFORM APPROACH. THE CONTENT AND ORDER
OF PRESENTATION IN THIS REPORT INCLUDES THE
FOLLOWING: (1) A DISCUSSION AND ANALYSIS OF
USER COMMUNITIES AND THEIR NEEDS, (2) A
DISCRIPTION OF THE PRELIMINARY SYSTEMS DESIGN
ENCOMPASSING BOTH SUITLAND AND ASHEVILLE
OPERATIONS, (3) DETAILED CONSIDERATION OF THE
PROPOSED SYSTEMS DESIGN IN AREAS OF TYPICAL
EQUIPMENT, MATERIALS, PRODUCTION RATES, CAPITAL
INVESTMENT, OPERATING COSTS, AND THE QUALITY OF
OUTPUT FROM THE SYSTEM AT VARIOUS STAGES.
(AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-680 691 9/2
DAVID TAYLOR MODEL BASIN WASHINGTON D C APPLIED
MATHEMATICS LAB
S-C 4020 MICROFILM RECORDER PROGRAMMING MANUAL
2.

(U)

DESCRIPTIVE NOTE: FINAL REPT.,
FEB 67 62P BATTEY, PHILIP E. I
PROJ: S-R003-08-01
TASK: 10923
MONITOR: DTMB 2210

UNCLASSIFIED REPORT

DESCRIPTORS: (•DIGITAL COMPUTERS, •MICROFILM),
RECORDING SYSTEMS, COMPUTER PROGRAMS,
INSTRUCTION MANUALS, PROGRAMMING (COMPUTERS),
NAVAL RESEARCH
IDENTIFIERS: CHARACTRON

(U)

(U)

THE REPORT IS A PROGRAMMING MANUAL FOR THE S-C
4020 MICROFILM RECORDER (CHARACTRON), AT THE
APPLIED MATHEMATICS LABORATORY OF THE DAVID
TAYLOR MODEL BASIN. THE FUNCTION AND COMMAND
STRUCTURE OF THE VARIOUS COMPONENTS OF THE RECORDER
ALSO ARE DESCRIBED. USE OF THE CHARACTRON WITH
BOTH THE IBM 7090 AND THE LARC IS EXPLAINED.
FORTRAN AND LSC SUBROUTINES AND CALLING SEQUENCES
ARE DESCRIBED, AND SAMPLES ARE INCLUDED.
INFORMATION ABOUT THE TECHNICAL OPERATION OF THE
CHARACTRON, FLOW CHARTS, CODE LISTINGS, AND
EXPLANATIONS OF THE CODING SCHEMES USED TO GENERATE
COMMANDS WILL BE INCLUDED IN A FURTHER, MORE
TECHNICAL REPORT. (AUTHOR)

(U)

UNCLASSIFIED

ODC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-698 131 9/2 14/5
JOHNS HOPKINS UNIV SILVER SPRING MD APPLIED PHYSICS
LAB
COORDINATE READER AND CARD PUNCH OR TABULATOR, (U)
SEP 54 19P VANHAAGEN, RICHARD H. ;
REPT. NO. CF-2275
CONTRACT: NORD-7386

UNCLASSIFIED REPORT

DESCRIPTORS: (*FILM READERS, *DATA PROCESSING
SYSTEMS), OPERATION, MAINTENANCE, PUNCHED
CARDS (U)

THE EQUIPMENT WAS DESIGNED TO BE USED IN EITHER OF TWO MODES AS DICTATED BY THE REQUIREMENTS OF THE INFORMATION WHICH IS TO BE TRANSCRIBED. THE FIRST MODE IS ONE OF READING RELATIVE VALUES OF COORDINATES WHICH ARE RANDOMLY OR OTHERWISE SCATTERED ABOUT, SUCH AS PARTICLES IN A FLUID. THE POSITIONS OF THE PARTICLES MAY CHANGE AS A FUNCTION OF TIME, AND THE SUCCESSIVE READINGS WILL SHOW THEIR BEHAVIOR AND CAN BE MATHEMATICALLY ANALYZED. THIS MAY BE RECORDED ON A NUMBER OF SUCCESSIVE SINGLE-EXPOSURE FRAMES OF A PHOTOGRAPHIC FILM, OR ON ONE FRAME WITH SUCCESSIVE EXPOSURES. IN EACH OF THESE CASES BOTH COORDINATE VALUES ARE UNKNOWN. IN THE SECOND MODE, READINGS ARE MADE AT PRESCRIBED INTERVALS ALONG ONE AXIS, SUCH AS IN THE CONVERSION OF STRIP-CHART RECORDS AND OSCILLOGRAPH RECORDS TO PUNCHED CARDS, WHERE EQUAL STEPS ALONG ONE (USUALLY THE HORIZONTAL) AXIS ARE DESIRED; THE POSITION OF THE OTHER COORDINATE BEING THE INTERSECTION OF THE FIRST ONE AND THE RECORDED TRACE. INITIAL READ-OUT OF CALIBRATION TRACES ALLOWS AN INTERPOLATION BY MACHINE CALCULATION WHICH PRODUCES LINEARIZED DATA. (U)

UNCLASSIFIED

DOC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-660 327 14/5 17/7
ARMY ENGINEER RESEARCH AND DEVELOPMENT LABS FORT BELVOIR
VA
PROTOTYPE MICROFILM PROJECTOR FOR NAVIGATIONAL
CHARTS. (U)
DESCRIPTIVE NOTE: INTERIM REPT.,
AUG 67 28P MORRILL, PHILIP I
REPT. NO. AERDL-1906
TASK: 1M442012029611

UNCLASSIFIED REPORT

DESCRIPTORS: (PHOTOGRAPHIC PROJECTORS,
MICROFILM), (NAVIGATION CHARTS, PHOTOGRAPHIC
PROJECTORS), MODEL TESTS, NAVIGATION, SHIPS,
MAPS, SCIENTIFIC RESEARCH (U)

DESCRIPTION OF A MICROFILM PROJECTOR FOR
NAVIGATIONAL CHARTS FOR SHIPBOARD INSTALLATION.
THE PROTOTYPE MODEL TESTS AND CORRECTIONS, AS WELL
AS THE DIRECTION OF FUTURE DEVELOPMENTS, ARE
DESCRIBED. (AUTHOR) (U)

UNCLASSIFIED

DDC REPORT BIBLIOGRAPHY SEARCH CONTROL NO. 000086

AD-664 845 14/5 9/5 20/6
SIGNALS RESEARCH AND DEVELOPMENT ESTABLISHMENT
CHRISTCHURCH (ENGLAND)
THE DESIGN OF EQUIPMENT FOR MICRO-PHOTOGRAPHY, (U)
JUN 67 17P HEAD, K. I
REPT. NO. SRDE-67001

UNCLASSIFIED REPORT

DESCRIPTORS: (MICROPHOTOGRAPHY, PHOTOGRAPHIC
EQUIPMENT), (PHOTOGRAPHIC EQUIPMENT, DESIGN),
MICROMINIATURIZATION(ELECTRONICS), INTEGRATED
CIRCUITS, PHOTOGRAPHIC TECHNIQUES, OPTICAL IMAGES,
PHOTOGRAPHIC MATERIALS, RESOLUTION, LENSES,
DIFFRACTION, CAMERAS, BRIGHTNESS (U)
IDENTIFIERS: MICROPHOTOGRAPHY (U)

THE REPORT DESCRIBES THE DESIGN OF A COMPLETE
EQUIPMENT FOR MICRO-PHOTOGRAPHY. SOME THEORETICAL
CONSIDERATIONS ARE DISCUSSED AND THE CAMERA
CONSTRUCTION AND LIGHTING UNIT ARE DESCRIBED IN
DETAIL. (AUTHOR) (U)

SUBJECT INDEX

*ABSTRACTS

REPORTS
SYSTEM COMPONENTS INFORMATION
CENTER.*
AD-425 581

*CATALOGS

MICROFILM
COMPUTER-PRODUCED MICROFILM
LIBRARY CATALOG.*
AD-647 174

*CLOUD COVER

PHOTOGRAPHIC RECONNAISSANCE
STUDY OF NIMBUS SATELLITE
PHOTOGRAPH ARCHIVES SYSTEM
REQUIREMENTS FOR UNITIZED
MICROFORM.*
AD-426 137

*DATA

ENGINEERING
SYSTEM COMPONENTS INFORMATION
CENTER.*
AD-425 581

*DATA PROCESSING SYSTEMS

THE DEVELOPMENT OF A MINICARD
VIEWER PROCESSOR MX-1993 (Xw-1)/G*
AD-260 073

DOCUMENTATION

DEFENSE DOCUMENTATION CENTER
FIVE YEAR PLAN STUDY: APPENDIX.*
AD-667 173

FILM READERS

COORDINATE READER AND CARD PUNCH
OR TABULATOR.*
AD-668 131

INFORMATION RETRIEVAL

CONVERTING THE IDEF MASTER FILE
REPORTS FORMAT.*
AD-639 624

MILITARY REQUIREMENTS

TECHNICAL DATA HANDLING SURVEY.
VOLUME 1. REVIEW OF PROJECTED NAVY
USER REQUIREMENTS AND CURRENT
VENUE CAPABILITIES.*
AD-661 769

*DIGITAL COMPUTERS

MICROFILM
S-C 4020 MICROFILM RECORDER
PROGRAMMING MANUAL 2.*
AD-639 691

*DOCUMENTATION

U. S. ARMY CBR AGENCY
ENGINEERING DATA MICRO-REPRODUCTION
SYSTEM - PROJECT NO. 61001, PHASE
I*
AD-400 262

AUTOMATION

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.*
AD-654 560

MICROFILM

APPLICATION OF MICROFILMING TO
THE PRODUCTION, DISTRIBUTION, USE,
AND RETRIEVAL OF TECHNICAL REPORTS.
AD-615 800

STATE-OF-THE-ART REVIEWS

DEFENSE DOCUMENTATION CENTER
FIVE YEAR PLAN STUDY: APPENDIX.*
AD-667 173

*ELECTROPHOTOGRAPHY

NAVAL EQUIPMENT
APPLICATION OF ELECTROSTATIC
IMAGING TO NAVAL SYSTEMS.
AD-646 037

*FILM PROJECTORS

SCREENING VIEWER*
AD-290 749

*FILM READERS

SCREENING VIEWER*
AD-290 749

DATA PROCESSING SYSTEMS

COORDINATE READER AND CARD PUNCH
OR TABULATOR.*
AD-658 131

DESIGN

PROTOTYPE AUDIO-VISUAL AID.*
AD-419 895

*INFORMATION RETRIEVAL

MICROFILM
SYSTEM COMPONENTS INFORMATION
CENTER.*
AD-425 581

APPLICATION OF MICROFILMING TO
THE PRODUCTION, DISTRIBUTION, USE,
AND RETRIEVAL OF TECHNICAL REPORTS.
AD-615 800

DYNAMICALLY UPDATABLE MICROFILM
INFORMATION STORAGE, RETRIEVAL, AND

INP-NIC

DISPLAY SYSTEM: DEVELOPMENT OF THE
CONCEPT.
AD-620 279

RECORDS

A LARGE-SCALE INFORMATION
RETRIEVAL SYSTEM FOR TECHNICAL
INFORMATION AT THE AVIATION SUPPLY
OFFICE.

AD-419 444

STATE-OF-THE-ART REVIEWS
INFORMATION STORAGE AND
RETRIEVAL: A STATE-OF-THE-ART
REPORT.

AD-630 089

***INPUT-OUTPUT DEVICES
SYSTEMS ENGINEERING**

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REP. T, JULY
1965.*

AD-634 560

***LIBRARIES**

AUTOMATION

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY: NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.*

AD-640 122

CATALOGS

COMPUTER-PRODUCED MICROFILM
LIBRARY CATALOG.*

AD-647 174

MICROFILM

LIBRARY FICHE: AN INTRODUCTION
A D EXPLANATION.*

AD-661 660

MILITARY ORGANIZATIONS

MILITARY LIBRARIANS WORKSHOP
(9TH) HELD AT THE UNITED STATES
MILITARY ACADEMY, WEST POINT, NEW
YORK, 3-5 NOVEMBER 1965.*

AD-633 928

SCIENTIFIC RESEARCH

BOOKS AND LIBRARIES IN THE
SCIENTIFIC AGE.*

AD-643 217

SYMPOSIA

THIRD MILITARY LIBRARIANS'
WORKSHOP.

AD-479 447

***MAGNETIC RECORDING SYSTEMS**

MICROFILM

DYNAMICALLY UPDATABLE MICROFILM
INFORMATION STORAGE, RETRIEVAL, AND
DISPLAY SYSTEM: DEVELOPMENT OF THE
CONCEPT.

AD-620 279

***METEOROLOGICAL SATELLITES**

DATA PROCESSING SYSTEMS

STUDY OF NIMBUS SATELLITE
PHOTOGRAPH ARCHIVES SYSTEM
REQUIREMENTS FOR UNITIZED
MICROFORM.*

AD-426 137

***MICROFICHE**

COST EFFECTIVENESS

LIBRARY FICHE: AN INTRODUCTION
AND EXPLANATION.*

AD-661 660

DATA PROCESSING SYSTEMS

CONVERTING THE IDEP MASTER FILE
REPORTS FORMAT.*

AD-639 624

LIBRARIES

MICROFICHE USAGE IN THE
TECHNICAL LIBRARY AT NAVAL WEAPONS
LABORATORY.*

AD-644 337

***MICROFILM**

CATALOGS

COMPUTER-PRODUCED MICROFILM
LIBRARY CATALOG.*

AD-647 174

DATA PROCESSING SYSTEMS

CONVERTING THE IDEP MASTER FILE
REPORTS FORMAT.*

AD-639 624

DIGITAL COMPUTERS

S-C 4020 MICROFILM RECORDER
PROGRAMMING MANUAL 2.*

AD-650 691

DOCUMENTATION

APPLICATION OF MICROFILMING TO
THE PRODUCTION, DISTRIBUTION, USE,
AND RETRIEVAL OF TECHNICAL REPORTS.

AD-615 800

INFORMATION RETRIEVAL

SYSTEM COMPONENTS INFORMATION
CENTER.*

AD-425 581

MAGNETIC RECORDING SYSTEMS

DYNAMICALLY UPDATABLE MICROFILM
INFORMATION STORAGE, RETRIEVAL, AND
DISPLAY SYSTEM: DEVELOPMENT OF THE
CONCEPT.

AD-620 279

***MICROPHOTOGRAPHY**

DEVELOPMENT TEST SUPPORT FOR
MINICARD VIEWER PROCESSOR MX-
1993(AW-1)G*

AD-263 593

PHOTOGRAPHIC EQUIPMENT

THE DESIGN OF EQUIPMENT FOR
MICRO-PHOTOGRAPHY.*

AD-604 845

***NAVAL PROCUREMENT
RECORDS**

A LARGE-SCALE INFORMATION
RETRIEVAL SYSTEM FOR TECHNICAL
INFORMATION AT THE AVIATION SUPPLY
OFFICE.

AD-419 444

***NAVIGATION CHARTS**

PHOTOGRAPHIC PROJECTORS

PROTOTYPE MICROFILM PROJECTOR
FOR NAVIGATIONAL CHARTS.*

AD-600 337

***PHOTOGRAPHIC EQUIPMENT
DESIGN**

THE DESIGN OF EQUIPMENT FOR
MICRO-PHOTOGRAPHY.*

AD-604 845

***PHOTOGRAPHIC PROJECTORS
MICROFILM**

PROTOTYPE MICROFILM PROJECTOR
FOR NAVIGATIONAL CHARTS.*

AD-600 337

***PHOTOGRAPHIC RECORDING SYSTEMS**

DEVELOPMENT TEST SUPPORT FOR
MINICARD VIEWER PROCESSOR MX-
1993(AW-1)G*

AD-263 593

***PRINTING
COSTS**

PUBLICATION COST ANALYSIS
TECHNIQUES.*

AD-632 472

SCIENTIFIC RESEARCH

EXPERIMENTAL INVESTIGATION OF
MICROPRINTING BY THE OFFSET METHOD.

AD-621 479

EXPERIMENTAL INVESTIGATION OF
MICROPRINTING BY THE OFFSET METHOD,
SUPPLEMENT.

AD-621 480

***READING MACHINES**

THE DEVELOPMENT OF A MINICARD
VIEWER PROCESSOR MX-1993 (XW-1)/G*

AD-260 073

***SCIENTIFIC PERSONNEL
LIBRARIES**

BOOKS AND LIBRARIES IN THE
SCIENTIFIC AGE.*

AD-645 217

***SCIENTIFIC RESEARCH
DOCUMENTATION**

SOURCES OF UNCLASSIFIED
INFORMATION ON U. S. GOVERNMENT
RESEARCH AND DEVELOPMENT.*

AD-650 110

***SLIDE PROJECTORS**

PHOTOGRAPHIC RECORDING SYSTEMS

UNIT RECORD SCREENING VIEWER.*

AD-419 914

***STATE-OF-THE-ART REVIEWS
DOCUMENTATION**

DEFENSE DOCUMENTATION CENTER
FIVE YEAR PLAN STUDY: APPENDIX.*

AD-667 273

***SYMPOSIA
LIBRARIES**

THIRD MILITARY LIBRARIANS'
WORKSHOP.

AD-479 447

***SYSTEMS ENGINEERING
INPUT-OUTPUT DEVICES**

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.*

AD-654 560

***TECHNICAL INFORMATION CENTERS
AUTOMATION**

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.*

AD-640 115

DEPARTMENT OF DEFENSE

ANNUAL HISTORICAL SUMMARY, 1

MIC-TEC

JULY 1965 TO 30 JUNE 1966 OF
DEFENSE DOCUMENTATION CENTER.
AD-645 500

CORPORATE AUTHOR - MONITORING AGENCY

*AERONAUTICAL SYSTEMS DIV WRIGHT-
PATTERSON AFB OHIO

* * *

ASD-TDR63 695
SYSTEM COMPONENTS INFORMATION
CENTER,
AD-425 581

*AIR FORCE OFFICE OF SCIENTIFIC
RESEARCH ARLINGTON VA DIRECTORATE
OF INFORMATION SCIENCES

* * *

AFOSR-67-0006
BOOKS AND LIBRARIES IN THE
SCIENTIFIC AGE,
AD-645 217

*ARMY CHEMICAL-BIOLOGICAL-RADIOLOGICAL
ENGINEERING GROUP ARMY CHEMICAL
CENTER MD

* * *

ES5
U. S. ARMY CBR AGENCY
ENGINEERING DATA MICRO-REPRODUCTION
SYSTEM - PROJECT NO. 61001, PHASE I
AD-400 262

*ARMY ENGINEER RESEARCH AND
DEVELOPMENT LABS FORT BELVOIR VA

* * *

AERDL-1906
PROTOTYPE MICROFILM PROJECTOR
FOR NAVIGATIONAL CHARTS.
AD-660 337

*AUERBACH CORP PHILADELPHIA PA

* * *

PR-7500-145
INFORMATION STORAGE AND
RETRIEVAL, A STATE-OF-THE-ART
REPORT,
AD-630 089

*BAUSCH AND LOMB INC ROCHESTER N Y

* * *

UNIT RECORD SCREENING VIEWER.
AD-419 914

*BOOZ-ALLEN APPLIED RESEARCH INC
BETHESDA MD

* * *

914-1-20
MECHANIZATION STUDY OF THE
RECON CENTRAL, RECONNAISSANCE
DIVISION, AIR FORCE AVIONICS LAB.,
WRIGHT-PATTERSON AFB, OHIO.
AD-640 115

* * *

914-1-27

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*DAVID TAYLOR MODEL BASIN WASHINGTON
D C APPLIED MATHEMATICS LAB

* * *

DTMB-2210
S-C 4020 MICROFILM RECORDER
PROGRAMMING MANUAL 2.
AD-650 691

* * *

DTMB-2337
NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.
AD-654 560

*DEFENSE DOCUMENTATION CENTER
ALEXANDRIA VA

* * *

ANNUAL HISTORICAL SUMMARY, 1
JULY 1965 TO 30 JUNE 1966,
AD-645 500

*ELECTRONIC SYSTEMS DIV L G HANSCOM
FIELD MASS

* * *

ESD-TR-65-90
SUMMARY OF EFFORTS EXPENDED ON
THE CONCEPT OF 'DYNAMIC UPDATE OF A
MICROFILM FILE',
AD-620 279

*FAIRCHILD CAMERA AND INSTRUMENT CORP
SYOSSET N Y

* * *

SCREENING VIEWER
AD-290 749

*GENERAL ELECTRIC CO PHILADELPHIA PA
MISSILE AND SPACE DIV

* * *

65SD249
A STUDY ON THE APPLICATION OF
MICROFILMING TO THE PRODUCTION,
DISTRIBUTION, USE, AND RETRIEVAL OF
TECHNICAL REPORTS.
AD-615 800

*HUGHES AIRCRAFT CO CULVER CITY CALIF

* * *

FR63 11 208
PROTOTYPE AUDIO-VISUAL AID.
AD-419 895

*INFORMATION DYNAMICS CORP WAKEFIELD

JOM-SMC

MASS

* * *

IDC R1101 1
STUDY OF NIMBUS SATELITE
PHOTOGRAPH ARCHIVES SYSTEM
REQUIREMENTS FOR UNITIZED
MICROFORM.
AD-426 137

*JOHNS HOPKINS UNIV SILVER SPRING MD
APPLIED PHYSICS LAB

* * *

CF-2275
COORDINATE READER AND CARD
PUNCH OR TABULATOR.
AD-658 131

*LOCKHEED MISSILES AND SPACE CO
SUNNYVALE CALIF

* * *

LMSD-50-10-66-6
COMPUTER-PRODUCED MICROFILM
LIBRARY CATALOG.
AD-647 174

*MILITARY ACADEMY WEST POINT N Y

* * *

MILITARY LIBRARIANS WORKSHOP
(9TH) HELD AT THE UNITED STATES
MILITARY ACADEMY, WEST POINT, NEW
YORK, 3-5 NOVEMBER 1965.
AD-638 928

*MITRE CORP BEDFORD MASS

* * *

TM-04024
SUMMARY OF EFFORTS EXPENDED ON
THE CONCEPT OF 'DYNAMIC UPDATE OF A
MICROFILM FILE'.
(ESU-TR-65-90)
AD-620 279

*NAVAL POSTGRADUATE SCHOOL MONTEREY
CALIF

* * *

THE MILITARY LIBRARIANS'
WORKSHOP (3RD) OCTOBER 8-10, 1959,
MONTEREY, CALIFORNIA.
AD-479 447

*NAVAL WEAPONS LAB DAHLGREN VA

* * *

NWL-MAL-1
MICROFICHE USAGE IN THE
TECHNICAL LIBRARY AT NAVAL WEAPONS
LABORATORY.
AD-644 337

*OFFICE OF NAVAL RESEARCH WASHINGTON

D C

* * *

SOURCES OF UNCLASSIFIED
INFORMATION ON U. S. GOVERNMENT
RESEARCH AND DEVELOPMENT.
AD-650 110

*PENNSYLVANIA UNIV PHILADELPHIA
MOORE SCHOOL OF ELECTRICAL
ENGINEERING

* * *

63 22
STORAGE AND RETRIEVAL OF
TECHNICAL INFORMATION.
AD-419 444

*PLANNING RESEARCH CORP LOS ANGELES
CALIF

* * *

PRC-R-1029
TECHNICAL DATA HANDLING SURVEY.
VOLUME I. REVIEW OF PROJECTED NAVY
USER REQUIREMENTS AND CURRENT
VENDOR CAPABILITIES.
AD-661 789

*REDSTONE SCIENTIFIC INFORMATION
CENTER REDSTONE ARSENAL ALA

* * *

RSIC-567
CONVERTING THE IDEP MASTER FILE
REPORTS FORMAT.
AD-639 624

*SIGNALS RESEARCH AND DEVELOPMENT
ESTABLISHMENT CHRISTCHURCH
(ENGLAND)

* * *

SRDE-67J01
THE DESIGN OF EQUIPMENT FOR
MICRO-PHOTOGRAPHY.
AD-664 845

*SMC EQUIPMENT MANUALS FIELD OFFICE
CHAMBERSBURG PA IMPROVEMENTS
BRANCH

* * *

65-10
AN EXPERIMENTAL INVESTIGATION
OF MICROPRINTING BY THE OFFSET
METHOD.
AD-621 479

* * *

65-10 SUPPL.
AN EXPERIMENTAL INVESTIGATION
OF MICROPRINTING BY THE OFFSET
METHOD, SUPPLEMENT.
AD-621 480

SYS-XER

*SYSTEM DEVELOPMENT CORP FALLS CHURCH
VA

* * *
TM-WD-268/004/00
DEFENSE DOCUMENTATION CENTER
FIVE YEAR PLAN STUDY: APPENDIX.
AD-667 173

*SYSTEM DEVELOPMENT CORP SANTA MONICA
CALIF

* * *
SP-2341/000/01
PUBLICATION COST ANALYSIS
TECHNIQUES.
AD-632 472

* * *
SP-2922/000/01
LIBRARY FICHE: AN INTRODUCTION
AND EXPLANATION.
AD-661 660

*XEROX CORP ROCHESTER N Y

* * *
THE DEVELOPMENT OF A MINICARD
VIEWER PROCESSOR MX-1993 (XW-1)/G
AD-200 073

* * *
DEVELOPMENT TEST SUPPORT FOR
MINICARD VIEWER PROCESSOR MX-
1993(XW-1)G
AD-263 593

* * *
ELECTROSTATIC IMAGING.
AD-646 037

PERSONAL AUTHOR INDEX

*BARBOZA, G.

SUMMARY OF EFFORTS EXPENDED ON THE
CONCEPT OF 'DYNAMIC UPDATE OF A
MICROFILM FILE',
AD-620 279

*BATTEY, PHILIP E.

S-C 4020 MICROFILM RECORDER
PROGRAMMING MANUAL 2.
AD-650 691

*BERNSTEIN, GEORGE B.

TECHNICAL DATA HANDLING SURVEY.
VOLUME I. REVIEW OF PROJECTED NAVY
USER REQUIREMENTS AND CURRENT
VENDOR CAPABILITIES.
AD-661 789

*BERUL, LAWRENCE

INFORMATION STORAGE AND RETRIEVAL,
A STATE-OF-THE-ART REPORT,
AD-630 089

*CROWDER, D.

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.
AD-640 115

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*DAVIS, J. E.

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.
AD-640 115

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*DEVORE, CHARLES

SOURCES OF UNCLASSIFIED INFORMATION
ON U. S. GOVERNMENT RESEARCH AND
DEVELOPMENT,
AD-650 110

*DUCKENFIELD, THOMAS A.

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.
AD-654 560

*DYAL, JAMES O.

ELECTROSTATIC IMAGING.
AD-646 037

*FINAL REPT

UNIT RECORD SCREENING VIEWER.
AD-419 914

*FUCHS, JOSEPH L.

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.
AD-654 560

*GRAY, GILBERT R.

NAVY AUTOMATED RESEARCH AND
DEVELOPMENT INFORMATION SYSTEM
(NARDIS) PROGRESS REPORT, JULY
1966.
AD-654 560

*HEAD, K.

THE DESIGN OF EQUIPMENT FOR MICRO-
PHOTOGRAPHY,
AD-664 845

*KERSHAW, G. A.

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.
AD-640 115

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*KOZUMPLIK, W. A.

COMPUTER-PRODUCED MICROFILM LIBRARY
CATALOG,
AD-647 174

LAN-WOO

*LANGE, R. T.

* * *

COMPUTER-PRODUCED MICROFILM LIBRARY
CATALOG,
AD-647 174

*LOGES, E. G.

* * *

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.
AD-640 115

* * *

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*LYON, CATHRYN C.

* * *

MICROFICHE USAGE IN THE TECHNICAL
LIBRARY AT NAVAL WEAPONS
LABORATORY,
AD-644 337

*MARTIN, CLAUDE E.

* * *

CONVERTING THE IDEP MASTER FILE
REPORTS FORMAT,
AD-639 624

*MERENDINI, E.

* * *

MECHANIZATION STUDY OF THE RECON
CENTRAL, RECONNAISSANCE DIVISION,
AIR FORCE AVIONICS LAB., WRIGHT-
PATTERSON AFB, OHIO.
AD-640 115

* * *

MECHANIZATION STUDY OF THE
TECHNICAL LIBRARY, NAVAL ORDNANCE
LABORATORY, WHITE OAK, MARYLAND.
AD-640 122

*MORRILL, PHILIP

* * *

PROTOTYPE MICROFILM PROJECTOR FOR
NAVIGATIONAL CHARTS.
AD-660 337

*REA, ROBERT H.

* * *

ANNUAL HISTORICAL SUMMARY, 1 JULY
1965 TO 30 JUNE 1966,
AD-645 500

*REDD, OLIVER F.

* * *

AN EXPERIMENTAL INVESTIGATION OF
MICROPRINTING BY THE OFFSET METHOD.
AD-621 479

* * *

AN EXPERIMENTAL INVESTIGATION OF
MICROPRINTING BY THE OFFSET METHOD,
SUPPLEMENT.
AD-621 480

*SALISBURY, JOHN T.

* * *

A STUDY ON THE APPLICATION OF
MICROFILMING TO THE PRODUCTION,
DISTRIBUTION, USE, AND RETRIEVAL OF
TECHNICAL REPORTS.
AD-615 800

*SPARKS, JOHN A

* * *

U. S. ARMY CBR AGENCY ENGINEERING
DATA MICRO-REPRODUCTION SYSTEM -
PROJECT NO. 61001, PHASE I
AD-400 262

*TEPLITZ, ARTHUR

* * *

PUBLICATION COST ANALYSIS
TECHNIQUES.
AD-632 472

* * *

LIBRARY FICHE: AN INTRODUCTION AND
EXPLANATION.
AD-661 660

*TOLL, MARVIN G.

* * *

SYSTEM COMPONENTS INFORMATION
CENTER,
AD-425 581

*VAN DAM, ANDRIES

* * *

STORAGE AND RETRIEVAL OF TECHNICAL
INFORMATION.
AD-419 444

*VANHAAGEN, RICHARD H.

* * *

COORDINATE READER AND CARD PUNCH OR
TABULATOR,
AD-658 131

*WATSON, R.

* * *

DEFENSE DOCUMENTATION CENTER FIVE
YEAR PLAN STUDY: APPENDIX.
AD-667 173

*WOOSTER, HAROLD

LAN-WOO

* * *
BOOKS AND LIBRARIES IN THE
SCIENTIFIC AGE,
AD-645 217

CONTRACT INDEX

*AF19 628 2390
MITRE CORP BEDFORD MASS
TP-04024
(ESD-1R-65-90)
AD-620 279

*AF30 602 1523
XEROX CORP ROCHESTER N Y
F AD-260 073

*AF30 602 2343
XEROX CORP ROCHESTER N Y
F AD-263 593

*OSA-7-15489
BOOZ-ALLEN APPLIED RESEARCH INC
BETHESDA MD
914-1-20
F AD-640 115
914-1-27
AD-640 122

*N00600-67-C-0999
PLANNING RESEARCH CORP LOS ANGELES
CALIF
PRC-R-1029
F AD-661 709

*NONR4098 00
HUGHES AIRCRAFT CO CULVER CITY
CALIF
PR63 11 208
F AD-419 895

*NONR-4912(00)
XEROX CORP ROCHESTER N Y
F AD-646 057

*NONR 55140
PENNSYLVANIA UNIV PHILADELPHIA
MOORE SCHOOL OF ELECTRICAL
ENGINEERING
03 22
AD-419 444

*NORD-7386
JOHNS HOPKINS UNIV SILVER SPRING
MD APPLIED PHYSICS LAB
CF-2275
AD-658 131

REPORT NUMBER INDEX

63 22
AD-419 444

65-10
AD-621 479

65-10 SUPPL.
AD-621 480

65SD249
AD-615 800

914-1-20
AD-640 115

914-1-27
AD-640 122

AERDL-1906
AD-660 337

AFOSR-67-0006
AD-645 217

ASD-TDR63 695
AD-425 581

CF-2275
AD-658 131

DTMB-2210
AD-650 691

DTMB-2337
AD-654 560

E55
AD-400 262

ESD-TR-65-90
AD-620 279

FR63 11 208
AD-419 895

IDC R1101 1
AD-426 137

LMSD-50-10-66-6
AD-647 174

NWL-MAL-1
AD-644 337

PR-7500-145
AD-630 089

PRC-R-1029
AD-661 789

RSOC-567
AD-639 624

SP-2341/000/01
AD-632 472

SP-2922/000/01
AD-661 660

SRDE-67001
AD-664 845

TM-04024
AD-620 279

TM-WD-268/004/00
AD-667 173

AD - NUMERIC INDEX

<u>AD NUMBER</u>	<u>PAGE</u>
260 073	25
263 593	26
290 749	27
400 262	9
415 214	28
419 444	10
419 895	29
419 914	30
425 581	11
426 137	31
479 447	12
615 800	13
620 279	14
621 479	15
621 480	16
630 089	17
632 472	1
638 928	18
639 624	2
640 115	19
640 122	20
644 337	3
645 217	4
645 500	5
646 037	6
647 174	21
650 110	7
650 691	32
654 560	22
655 151	23
660 337	34
661 660	8
661 789	23
664 845	35
667 173	24

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Defense Documentation Center Cameron Station Alexandria, Virginia 22314		2a. REPORT SECURITY CLASSIFICATION Unclassified-Unlimited	
3. REPORT TITLE Microfiche, Microfilm and Related Equipment		2b. GROUP	
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) VOLUME I - BIBLIOGRAPHY			
5. AUTHOR(S) (First name, middle initial, last name)			
6. REPORT DATE JULY 1968		7a. TOTAL NO. OF PAGES 64	7b. NO. OF REFS 35
8a. CONTRACT OR GRANT NO.		8b. ORIGINATOR'S REPORT NUMBER(S) DDC-TAS-68-3	
9. PROJECT NO.		9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report) AD-675 300	
10. DISTRIBUTION STATEMENT This document has been approved for public release and sale; its distribution is unlimited.			
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY	
13. ABSTRACT This bibliography is Volume I of two volumes which contains a compilation of approximately 40 Unclassified-Unlimited references on Microfiche, Microfilm and Related Equipment acquired by DDC since 1953. Citations are topically arranged in AD sequence, ascending order. The complete set (two volumes) will contain approximately 80 references. Volume II (AD-838 400) is an Unclassified-Limited compilation of references on Microfiche, Microfilm and Related Equipment acquired by DDC since 1953. Also included are the following computer produced indexes: Subject (Descriptor), Corporate Author (Originator), Personal Author, Contract, Report Number and AD-Number-page.			

DD FORM 1473
1 NOV 66

UNCLASSIFIED

Security Classification

UNCLASSIFIED

Security Classification

14	KEY WORDS	LINK A		LINK B		LINK C	
		ROLE	WT	ROLE	WT	ROLE	WT
	*Microfiche *Microfilm *Film Readers Microphotography Photographic Projectors Microforms Film Printers Film Viewers Film Projectors Minicards Reader-Printers						

UNCLASSIFIED

Security Classification